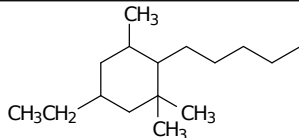


Assignment 2: Naming & Drawing Alkanes Compound

1. Name the below compound according to IUPAC Naming Method

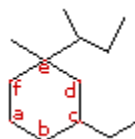
$\begin{array}{ccccccc} \text{CH}_3 & \text{CH}_2 & \text{CH} & \text{CH}_2 & \text{CH}_2 & \text{CH} & \text{CH}_2 & \text{CH}_3 \\ & & & & & & & \\ & & \text{CH}_3 & & & \text{CH}_2 & \text{CH}_3 & \end{array}$	$\begin{array}{c} \text{CH}_2\text{CH}_3 \\ \\ \text{CH}_3\text{CH}_2\text{CH}_2\text{CH}-\text{CH}_3 \end{array}$	$\begin{array}{c} \text{H}_3\text{C}-\text{CH}_2 \quad \text{CH}_3 \\ \quad \\ \text{CH}_3\text{CHCH}_2\text{CH}_2\text{CHCHCH}_2\text{CH}_3 \\ \\ \text{CH}_2\text{CH}_3 \end{array}$
$\begin{array}{c} \text{CH}_3 \quad \text{CH}_3 \\ \quad \\ \text{CH}_3\text{CH}_2\text{CCH}_2\text{CHCH}_3 \\ \\ \text{CH}_2\text{CH}_3 \end{array}$	$\begin{array}{c} \text{CH}_3 \quad \text{CH}_3 \\ \quad \\ \text{CH}_3\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}-\text{CH}-\text{CHCH}_3 \\ \quad \\ \text{CH}_2 \quad \text{CH}_3 \\ \\ \text{CH}_2-\text{CH}-\text{CH}_3 \end{array}$	
$\begin{array}{c} \text{CH}_3 \\ \\ \text{CH}_3\text{CH}-\text{CHCH}_2\text{CH}_2\text{CH}-\text{CH}_2\text{CH}-\text{CH}_3 \\ \quad \quad \\ \text{CH}_3 \quad \text{CH}_3 \quad \text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_3 \end{array}$	$\begin{array}{c} \text{CH}_3\text{CH}_2\text{CH}_2\text{CH}-\text{CH}-\text{CH}-\text{CH}_2 \\ \quad \quad \\ \text{CH}_3 \quad \text{CH}_2 \quad \text{CH}_3 \\ \quad \\ \text{CH}_2 \quad \text{CH}_2 \\ \quad \\ \text{CH}_3 \quad \text{CH}_3 \end{array}$	$\begin{array}{c} \text{H}_3\text{C}-\text{CH}-\text{CH}_3 \\ \\ \text{H}_3\text{C}-\text{CH}_2\text{CH}_2\text{CH}-\text{CH}_2\text{CH}_2\text{CH}_3 \end{array}$

2. Draw the below compound

a. 3-methyl-4-ethylheptane	b. 5,6-diethyldecane
c. 2-cyclobutyl-5-methylhexane	d. 4-isopropyl-2,6,6-trimethylnonane
e. 3,4-diethyl-4-methyloctane	f. 1-bromo-3-ethyl-5-methylcyclohexane

3. What is an isomer? Draw 4 of the isomer for C₇H₁₆

4. You are given a organic compound structure as below:



- In the IUPAC system, what is the root or base name of this compound?
 - How many alkyl substituent are attached to the ring? Name the substituents.
 - In numbering the ring, which carbon (a to f) is numbered #1?
 - In the numbering the ring, which carbon (a to f) is numbered #2?
 - Give the IUPAC name of this compound.
5. Write a balance equation for the complete combustion of heptane and undecane.